

PROCEEDINGS
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DESCRIPTION OF A NEW GENUS AND SPECIES OF
SPHÆROMIDÆ FROM ALASKAN WATERS.*

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The dredgings made by the U. S. Fish Commission Steamer 'Albatross' off the Alaskan coast in the years 1888-1894 contain a number of specimens of Sphæromidæ which evidently belong to a genus hitherto undescribed. Although it is impossible to refer these specimens to the genus *Ancinus* of Milne Edwards, yet they are more closely related to that genus than to any other. They resemble *Ancinus* in the possession of subchelate hands terminating the first and second pairs of gnathopods.

Tecticeps gen. nov.

Body oval and somewhat flattened.

Head subquadrangular, broader anteriorly than posteriorly, with its anterior and lateral margins produced, concealing the antennæ.

The antennæ, which are entirely hidden, extend backward and lie under the epimeral plates at the sides of the thorax.

The first and second pairs of legs are subchelate; the first pair terminate in a large hand and finger, bearing a small hook; the second pair terminate in a more irregularly shaped hand. All the other legs are simple in structure.

The terminal segment of the abdomen is triangular and entire and is pointed at its extremity. The uropoda are double-branched and lateral, and resemble closely those of the genus *Sphæroma*.

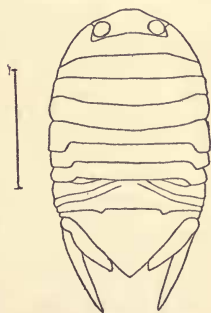


FIG. 9.—*Tecticeps alascensis*. $\times 2\frac{1}{4}$.

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This genus differs from the genus *Ancinus* of Milne Edwards —

1. In having uropoda with two branches instead of one.
2. In having the abdomen entire and not truncate at the tip.
3. In the prominent projection of the anterior and lateral margins of the head.
4. In the concealment of the antennæ, which are very conspicuous in the *Ancinus*.

Tecticeps alascensis sp. nov.

Outline of body oval. Surface quite smooth, but covered with little points of depression.

Head large; twice as long as any one of the thoracic segments. The anterior margin is produced in a way to conceal the antennæ, as are also the antero-lateral margins, making the anterior portion of the head in front of the eyes much broader than the posterior portion, and forming very acute antero-lateral angles. This frontal margin forms a very broad obtuse angle with its apex in the median line. On either side of this apex to the antero-lateral angle this portion of the head is somewhat depressed. The antennæ are not conspicuous, lying concealed beneath the frontal margin of the head. The first pair extends to the posterior angle of the first thoracic segment; its flagellum contains ten articles. The second pair reaches the middle of the second segment; its flagellum is twelve-jointed. The eyes are dorsally situated on the posterior half of the head.

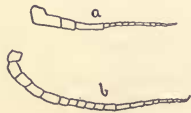


Fig. 10.—*a*, Antenna of 1st pair; *b*, Antenna of 2d pair. $\times 5\frac{1}{2}$.

The thoracic segments are about equal in length. The first one extends laterally around the posterior portion of the head, forming a broad plate at the side of the segment. The epimera of all the segments are about twice as broad as long, with the exception of those of the fifth segment, which are nearly square and very conspicuous.

The first segment of the abdomen has three suture lines, and its posterior margin projects down at the sides over the terminal segment. The terminal segment is triangular, and has a very pointed extremity. The uropods differ considerably. The inner one is broad and tapering, and does not reach the tip of the abdomen. The outer one is slender and sharply pointed, and extends beyond the abdomen.

The first pair of legs are subchelate, as are also the second pair. In the first pair the propodus is large and oval in shape, and bears in the palma a row of stiff bristles at regular intervals and pointing obliquely in the same direction, while a thick row of fine cilia, pointing obliquely in the opposite direction, cross these almost at right angles. The dactylus terminates in a single hook, at the base of which two smaller hooks are situated. In the legs of the second pair the propodus is irregular in shape with an indication of a rudimentary



FIG. 11.—*a*, Mandible; *b*, Mandibular appendage. $\times 5\frac{1}{2}$.

pollex. There are no hairs or bristles in the palma. The legs of the third, fourth, and fifth pairs present nothing unusual in structure, but resemble the ambulatory legs common to this family. In the sixth and seventh pairs the structure is the same as that of the preceding legs of the third, fourth, and fifth pairs, but with an increasing disproportion in the length of the propodus and dactylus. In the seventh pair of legs these joints, but more especially the propodus, attain a size most conspicuous for their length. The propodus becomes over $3\frac{1}{2}$ times longer than the carpus which immediately precedes it.

Color.—The color varies from dark brown to yellow, more or less dotted with black. In the darker specimens the epimera and the uropods are almost white, with scattered spots of black. Other specimens are brown with markings of red, and some are bluish-gray in color tinged with brown or orange.

Type.—The type specimen was found at Station 3515, latitude $59^{\circ} 59' N.$, longitude $167^{\circ} 53' W.$, at a depth of 13 fathoms. Catalogue No. 20031.

Distribution.—This species extends all along the coast of Alaska, having been found at the following stations: Station 3272, north of Amak Island (31 fathoms); Station 3297, off Cape Menchikoff (26 fathoms); Station 3246, south of Hagemeister Island ($17\frac{1}{2}$ fathoms); Station 2841, North Head, Akutan Island (56 fathoms); Station 3248, off Bristol Bay (21 fathoms); Station 3600, on the coast of California (9 fathoms).

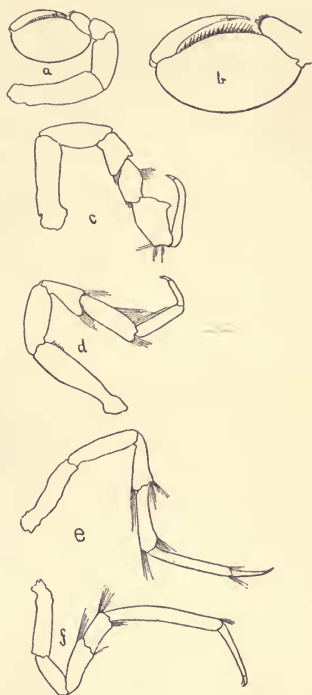


FIG. 12. — *a.* Leg of 1st pair. $\times 5\%$.
b. Last two joints of same.
 $\times 10\%$.
c. Leg of 2d pair. $\times 5\%$.
d. Leg of 3d pair. $\times 5\%$.
e. Leg of 6th pair. $\times 5\%$.
f. Leg of 7th pair. $\times 5\%$.